

Esay

Hemoptysis

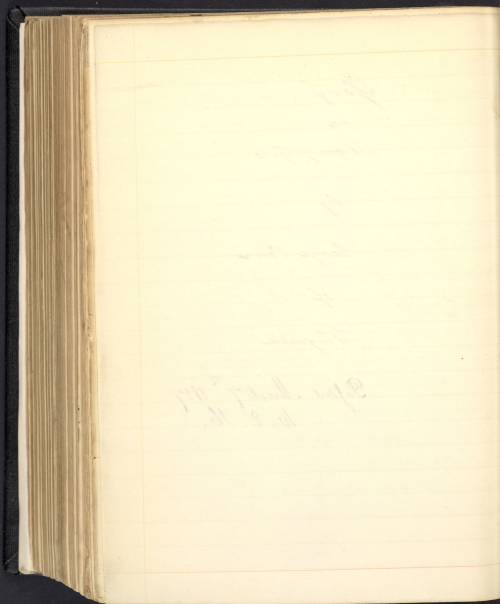
by

George Penn

of

Virginia

Passed March 7th 1827
W. L. H.



1
Hæmoptysis is derived from the two Greek words
haima blood, and spit. It is arranged by
Cullen, in the class pyrexia, and order hæmorrhagia.
By Doctor Chapman it is called, among
the diseases of the circulatory system. This dis-
ease is defined, as may be seen from its deri-
vation, to be a spitting of blood, without re-
gard to the source of its effusions. But this
definition is too vague. A spitting of blood may
take place, in many instances, unconnected
with hæmoptysis: it may proceed either from
the internal surface of the mouth, from the
faucis, posterior nares, stomach, larynx, trachea
or lungs. It is properly denominated hæmoptysis,
when it comes from the latter of these sources only.
When the sanguineous discharge takes place
from the internal surface of the mouth, or
from the faucis, it may be known by its
being brought up, by a mere hawking, or a
wet cough, or uneasiness of the breast. Its source

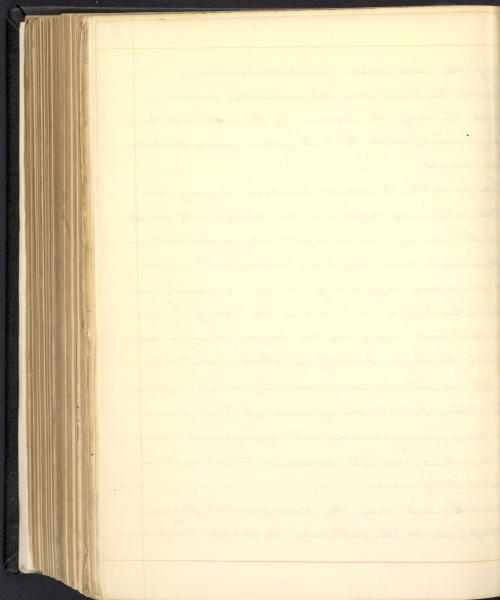
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may be seen also by examination.

Should the blood proceed from the posterior nares, it may be known by the patient's leaning forward, when it will flow from the anterior nares.

When from the larynx, or trachea, it may be attended with some coughing, and always with haughting, but no oppression, or febrile excitement in state. Should these symptoms, however, not render the diagnosis sufficiently obvious, a hæmorrhage from the larynx, or trachea, can easily be confounded with one from the lungs, when we recollect the large quantity of blood circulating in the one, and the small quantity which supplies the other. Indeed an effusion of blood from the lungs, may be considered a frequent occurrence, while from the larynx, or trachea, it is comparatively rare.

Hæmatemesis may be distinguished, from Hæmoptysis, in the following manner. the former



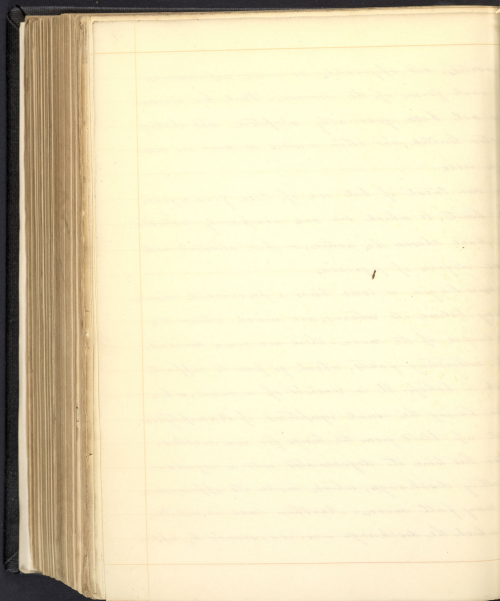
is said to be a more rare occurrence, the blood is greater in quantity, and the issue in general is of shorter duration. It is preceded by pain, anxiety, and a sense of weight, in the epigastric region. the blood brought up, is of a dark colour, grumous, and frequently mixed with the contents of the stomach. In Hematemesis the cough (if any) is not, hard and dry, the respiration difficult, nor is there much febrile excitement, which are common symptoms in Hemoptysis.

As like other hemorrhages has been divided, into active and passive. the former takes place from a morbid distention of the blood vessels, or from increased impetus of blood, and is attended with augmented arterial action; the latter, from debility & relaxation, and is attended with diminished arterial action. Doct^r Caldwell, however, objects to this division, as leading to a physiological error, and proposes in its stead, the terms toxic, and atonic, or

pyrexia, and apyrexia, as more representatives of each form of the disease. But his division has not been generally adopted, and that of Doctor Cullen, and other writers is now in common use.

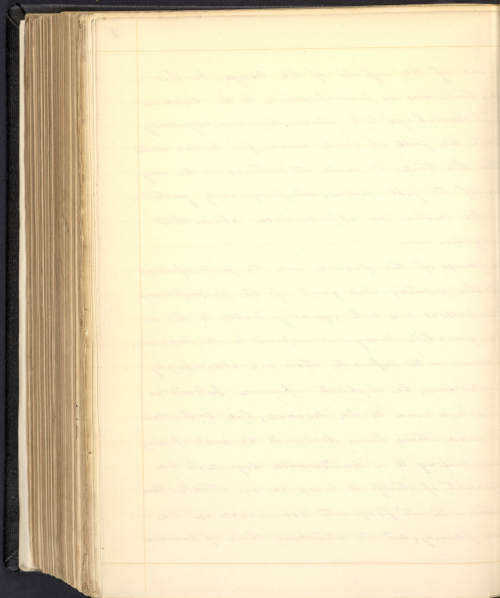
We can treat of but one of these forms, from the limits, to which we are necessarily restricted. We have chosen the active, or that attended with some degree of pyrexia.

Hæmorrhægia is some times a periodical disease. Many believe its returns, are much under the influence of the moon. There are some curious, and interesting facts, which go far to support such a belief. It is recorded of a man, who after having the usual symptoms of hæmoptoeia, spit up blood from the lungs for six weeks. After this time it degenerated into a regular monthly discharge, which made its appearance at every full moon. Another case is related, in which the discharge was occasioned by rupture



if one of the symptoms of the disease. In this case, there was no predisposition to the disease. The hemorrhage took place, however, regularly about the full of each moon, for twelve months. After this time, it made its returns on the very days of the full moon, and frequently just as she made her appearance above the horizon.

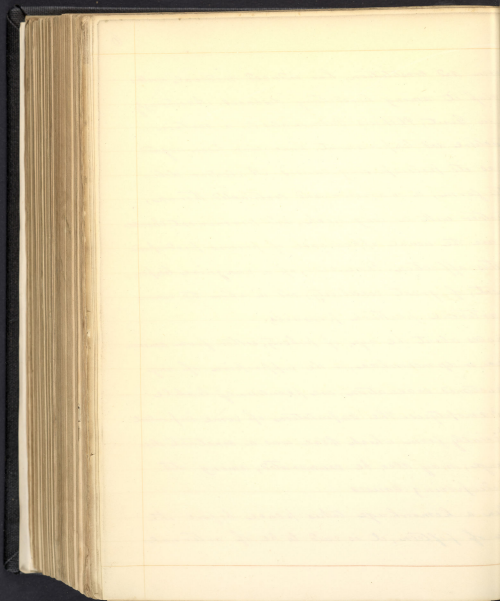
The causes of this disease, are the predisposing and the exciting. And first of the predisposing. All persons are not equally liable to this disease, for while many are exposed to its occasional cause with impunity, others are alarmingly affected from the slightest exposure. Indeed so prone are some to the disease, that Dr. Cullen and some others have declared the predisposing cause, arising to a considerable degree, to be sufficient of itself to bring on an attack. This, together with its frequent occurrence in the same family, and its attacking those of peculiar



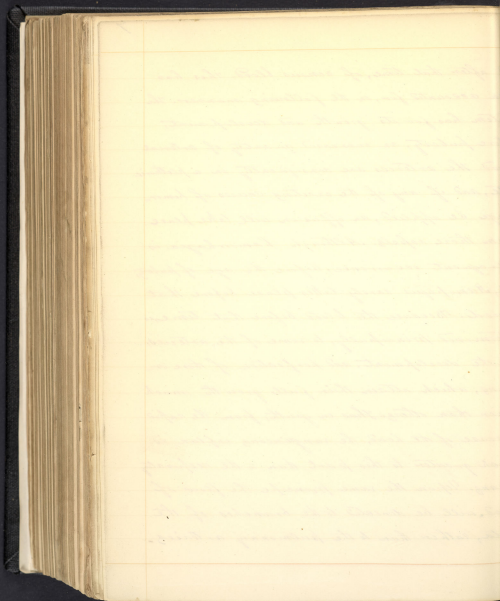
form and constitution, has induced medical writers to class it among hereditary diseases. Accordingly, as in Gout, *Phthisis Pulmonalis* &c, a certain structure and temperament, have ever been regarded as its predisposing causes. A slender delicate form, a narrow and contracted thorax, together with a long neck, and prominent shoulders, are the usual appearance of persons predisposed to this affection. Those, also, of a sanguine temperament, of great sensibility, and in whom the venous or arterial plethora prevails.

Females about the age of puberty, either from amenorrhoea, or dysmenorrhoea, or the suppression of any accustomed evacuation, are peculiarly liable to Hemoptysis. The amputations of some important ^{organs}, especially from which there was a constant discharge, may also be enumerated, among its predisposing causes.

When a hemorrhage takes place before the age of fifteen, it is said to be of arterial,

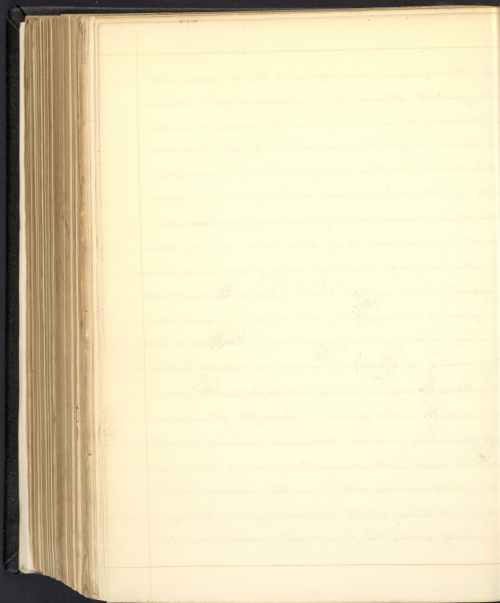


and after that time, of venous blood. This has been accounted for, in the following manner. The system has for its growth and development, before puberty, an increased quantity of arterial blood. The arterics are consequently in a plethoric state, and if any of the exciting causes of hemorrhage be applied, an effusion will take place from those vessels. Although hemorrhagia is a frequent occurrence, before the age of puberty, yet, Hemoptoeis rarely takes place before that period. Because the blood before that time is determined principally, to some of the arterics, for the development, and perfection of those organs, which attain their full growth much sooner than others. Thus in youth, from the rapid increase of the head, the sanguineous influx is much greater to this part than to the respiratory organs. Upon the same principle the flow of blood, will be directed to the branches of the aorta, rather than to the pulmonary arterics.



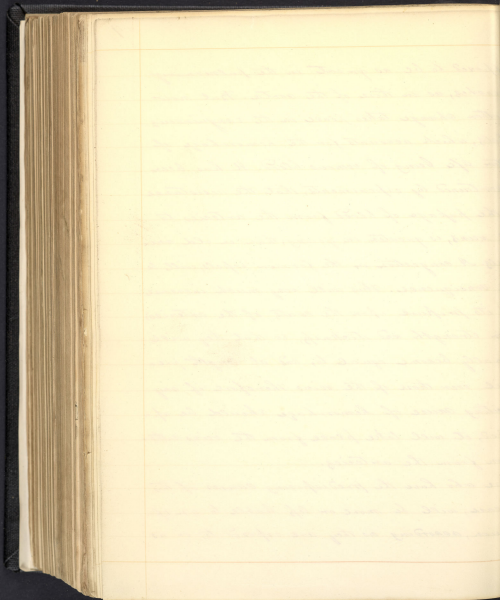
until the system has arrived to, or near its full growth. Hence if a hemorrhage should take place, it will be from the nose, or some other part supplied with blood by the branches of the aorta, rather than from the ramifying vessels of the pulmonary arteries.

Hæmoptysis occurs more frequently, between the ages of fifteen, and thirty five, than at any other time. In the early part of life, from the increased volume of blood in the arteries, (which support and nourish the system,) the pressure upon their walls increases their strength and thickness, so that in the course of time they exceed in density, those of the pulmonary arteries. Hæmoptysis is peculiarly apt to take place from the change in the circulation, which becomes equalized, and from the increased strength of the coats of the vessels of the aorta, and from the weakness, and shortness of those of the pulmonary arteries. After thirty five, the power of resistance is,



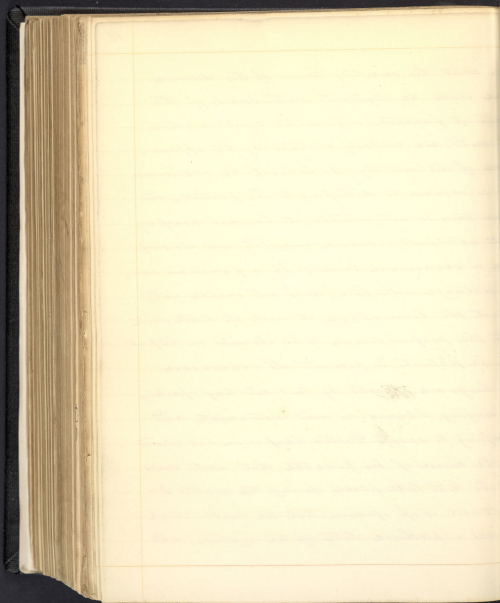
supposed to be as great in the pulmonary
 branches, as in those of the aorta. But now
 another change takes place in the sanguineous
 vessels, which accounts for the hemorrhage of
 after life being of venous blood. It has been
 ascertained by experiments, that the resistance
 to the passage of blood from the arteries to
 the veins, is greater in young, than in old ani-
 mals. A congestion in the former vessels, will be
 the consequence. This will very much increase
 by its pressure upon the coats of the arteries)
 their strength and thickness, so that they will
 finally become equal to, and at length pre-
 vail over those of the veins. Therefore if any
 exciting cause of hemorrhage should be ap-
 plied, it will take place from the veins rather
 than from the arteries.

Those who have the predisposing causes of this
 disease, will be more or less liable to an op-
 eration, according as they are exposed to, or as



by avoid the exciting causes of this disease. Some from the slightest disturbance of the natural functions, or from the least emotion of mind, are suddenly alarmed by the appearance of this malady. So frequent the occurrence of a disease so distressing to the patient, and some times so intractable, it becomes necessary that we should examine minutely, into its exciting, or occasional causes. If a familiar acquaintance with these, does not enable us to arrest the hemorrhage, it will at least point out the proper course to be observed on the part of the patient, to prevent its occurrence.

The lungs are affected by loud and long speaking, by ringing, blowing on wind instruments, and sleeping to excess. Doctor Chapman has observed in the course of his practice, that most cases of this kind take place during the night. Dr. Ballard is of opinion, that too much sleep induces a plethoric state of the system, and



acts secondarily upon the lungs, through the medium of the circulation. Among the local causes may also be enumerated, violence directly offered to the lungs, by blows and wounds producing rupture of the blood vessels - acute inflammation as in Catarrh - and the insipient stage of pleurisy - abscesses of the lungs from ill cured pneumonia and tubercles associated with a phthisical diathesis. The lungs are primarily affected by a very damp and heavy atmosphere - also by smoke, dust, or any foreign body existing in the bronchia. Coughing has, also, been enumerated as one of the exciting causes, which, however, is the effect generally, of some foreign bodies in the cells of the lungs.

Diminished pressure of the atmosphere is sometimes a cause of hamoptysis. There are many curious and interesting accounts, of the manner in which persons have been affected, while in

The first part of the paper is
entirely devoted to the
history of the country from
the first settlement to the
present time. It is a very
interesting and valuable
work, and one which every
person interested in the
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the country should read.

high and elevated situations. In ascending to the top of lofty mountains, they become greatly fatigued, much weaker ^{and} and debilitated, and sometimes entirely motionless. The pulse is much accelerated, the respiration difficult, and blood frequently gushes from the mouth and nose.

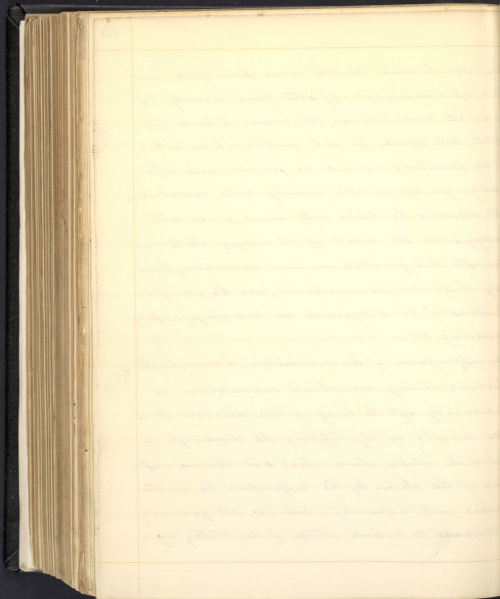
These effects are supposed to be owing to a diminished pressure of the atmosphere, and also to a want of oxygen. The hemorrhage is most probably owing to the former cause.

The general causes are such as affect the general system, especially those which make any considerable change in the circulation. The diet, though slow and almost imperceptible in its operation, tends as much as any other cause to affect the system, by its increasing plethora, and in some instances from its ~~form~~ its highly stimulating nature.

The excessive use of ardent spirits, and other stimulating beverages, acts in the same manner.

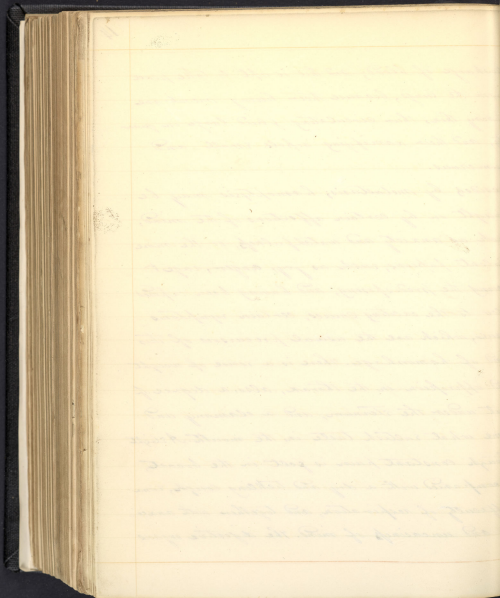
They are however much more powerful in their operation, and affect more directly the general circulation. The powers of heat and cold, are equal if not greater than either of the preceding causes: the former more especially giving greater velocity to the circulation, and discharging the blood with much force and energy, into the vessels of the lungs. Still more prompt and forcible in their operation, than any of the causes mentioned, are the excessive exertions of the body, such as running, jumping, wrestling &c.

The suppression of the catamenia, haemorrhoids, epistaxis, or any accustomed evacuation, is peculiarly apt to bring on this disease. It is also brought on by stopping the discharge of habitual ulcers, issues, setons, and chronic eruptions of the skin. By the suppression the system becomes preternaturally plethoric, and generally endeavours to relieve itself of this state, by a



discharge of blood; and this is apt to take place from the lungs, because their lining membrane is very thin, their circulating fluid large in quantity, and their ramifying vessels small and numerous.

Besides by metastasis; hæmoptysis may be brought on by certain affections of the mind, such as anxiety and watchfulness, or the more violent passions, such as joy, anger, rage &c. Among the predisposing, and having been exposed also to the exciting causes, certain symptoms ensue, which are the usual precursors of this kind of hæmorrhage. There is a sense of weight and oppression in the thorax, also, a degree of heat under the sternum, and a clammy and somewhat ractish taste in the mouth. A slight though constant pain is felt in the breast, accompanied with a dry and tickling cough, some difficulty of respiration, and together with anxiety and uneasiness of mind. The digestive organs



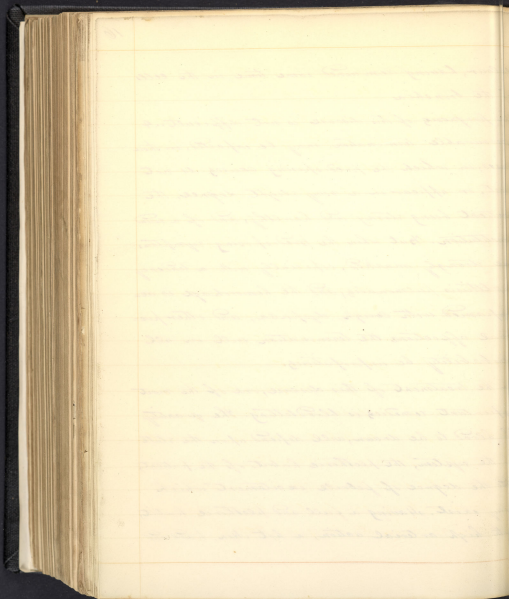
are some what disordered, the appetite impaired, the bowels constipated, and indeed a sense of disorder pervades the whole system. When the flow of blood is about to take place, there is in some cases chilliness, or shivering, coldness of the extremities, pains in the back and loins, a tumid countenance with a full and irregular pulse.

These are among the most usual symptoms of hæmoptysis, especially when accompanied with a high degree of phlogistic diathesis. But some times immediately before the appearance of the blood, a degree of irritation is only felt at the upper part of the larynx, and the blood is brought up, by coughing and hawking. It is at first small in quantity, and the discharge soon ceases; but by frequent repetition the quantity is increased, and the paroxysms become of longer duration. The blood brought up is of a bright red colour, frothy, and often mixed with mucus; but in other cases it is thick, and of a dark

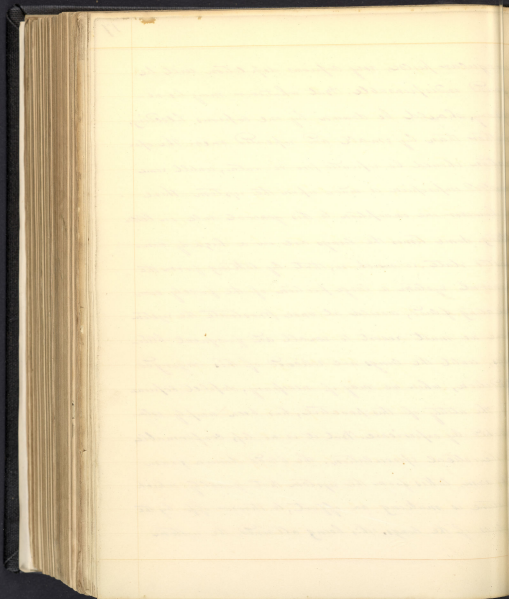
colour, having remained some time in the cells
of the bronchia

The prognosis of this disease is not difficult. A
favourable termination may be expected, in those
cases, in which the predisposing causes do not
exist, or appear in a very slight degree, the
patient being strong and healthy, and of a sound
constitution. But when the predisposing symptoms
are strongly marked, especially with a tendency
to plethorus pulmonalis, and the hemorrhage is ac-
companied with cough, dyspnoea, and other pecu-
lial affections the termination will in all
probability be unpropitious.

In the treatment of this disease, one of the most
important remedies is bloodletting. The quantity
of blood to be drawn, will depend upon the state
of the system, the plethoric habit of the patient,
and the degree of febrile excitement which
may exist. Having a full and plethoric habit,
with high arterial action, a hot skin, hard and



irregular pulse, very copious defecation will be
 found indispensable. But whatever may be ne-
 cessary, should be drawn by one copious bleeding,
 rather than by small and repeated ones. The op-
 eration should be repeated *pro re nata*, until some
 decided impression is made upon the system. There
 is however one exception to this general rule in blister-
 letting. Some times the lungs are in a high degree of con-
 gested state, so much so, that by taking from the
 general system a large portion of the freely cir-
 culating fluid, would at once prostrate the system.
 Here we must resort to small and frequent bleed-
 ings, until the lungs are relieved of this engorged
 condition, when we may if necessary, deplet copious-
 ly. The utility of this practice, has been amply estab-
 lished by experience. But it is no less conformable
 to theoretical speculation. The blood drawn from
 the arm, takes from the system that quantity which
 nature is making an effort, to throw off by the
 vessels of the lungs. This being attained, the system



becomes composed, and the hemorrhage stops.

As it might be explained upon the principle of resolution, inflexa being invited to one part, would stop the pre-existing hemorrhage in any other.

Besides general, local bloodletting will be frequently demanded. It is usually performed by applying cups, or leeches, to the breast, or back. Blood drawn in this manner, is highly efficacious, especially in low states of the disease. This plan, however, should never supersede resection, when that operation is called for.

As an auxiliary to bloodletting, cold applications are highly useful. They are hardly called for in profuse hemorrhage, accompanied with much arterial action, together with a hot and dry skin. But they should be cautiously applied in the opposite states of the system, and particularly to delicate and weakly females. For in such cases, reaction may never take place, and they may do

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much harm by directing the flow of blood to the internal parts. When properly indicated, the patient may place his hands in cold water, or cloths wrung out of cold water and vinegar, may be placed in the arm pits, to the side, or breast. Pediculations may also be employed, and cold applications made to the scrotum of the male, and to the pudendum of the female. The latter has long been known as a useful remedy in epistaxis, and has been found equally so in hæmoptysis. The cold bath, or sprinkling the body with cold water, and wrapping the patient in wet sheets, have been recommended by some practitioners. But they must be extreme cases, to justify such treatment, as fatal consequences might result, from the sudden & powerful shock given to the constitution.

The Nitrate of Potash has been used, with the same intention, as the preceding remedy. It has been recommended by Stolle and Richter, in a

saturated solution of brandy; but it is generally preferred to be given in doses, of $\frac{1}{2}$ to $\frac{1}{4}$ grs dissolved in a small quantity of ice water. When combined in the proportion of $\frac{1}{2}$ grs. Cal. Nitro, to 1 or 4 grs of Colic Elixir and dissolved in eight spoonfuls of cold water, one of which should be given every hour or two. This is an excellent remedy, in allaying heat, reducing arterial action, and exerting some degree of diaphoretic. To this preparation, when there is much pain or cough, the addition of a small portion of opium, will be found highly useful. The Nitrate of Potash, however, is not sufficient, nor any of its preparations, unaided by other means, to entirely stop the hemorrhage. It is usually prescribed, in the incipient stage of the disease, in conjunction with bloodletting. The Neutral Salts are likewise refrigerant, and might be added to combat the same symptoms, as the preceding remedies. But they are more remarkable for their evacuant power,

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and as such, are generally prescribed. They lessen arterial action, by bringing away watery stools; and quiet and compose the system, by keeping the bowels in a soluble state. They are indicated to be given, in the infusion of nuxes. For keeping the bowels open, Manna, Sennas &c. may also be used.

The use of Emetics in pulmonary hemorrhage, was much used, and highly praised by Brian Robinson of Dublin. He availed him of their good effects, in such cases, to the constriction which they produced upon the extreme vessels. From his recommendation, & great confidence in them, Dr Waller was induced to try them, in the same description of diseases. But in one instance of Hemoptysis, the hemorrhage was increased to such an alarming degree, that he was forced after deterring from their use. The nauseating plan of treatment has since that time been generally adopted. But a few physicians, encouraged by the benefit resulting

The first of these is the fact that the
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 and its own peculiar history. The second
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 character and its own peculiar history.

in some cases of active vomiting, and especially
 those which took place spontaneously, have again
 ventured to try them. This practice has in many in-
 stances, realized the most sanguine expectations.
 And from its superior efficacy in some cases,
 has supplanted the nauseating plan of treatment,
 in the hands of some physicians. Doctor Chapman
 relates a case of imminent danger, in which vomit-
 ing took place from a dose of Digitalis. The
 result was a suspension, or entire cure of the humors
 of the stomach. They are used mostly in those cases in which
 the flow of blood is slow, without much excitement,
 and those of a chronic character. But the act of
 vomiting is a considerable stimulus. Although
 it rouses the system into action, it nevertheless de-
 creases the flow of blood, from the internal parts to
 the surfaces. Whether its benefit in this way, will
 more than counterbalance the danger, which might
 arise from its stimulating action, is exceedingly
 problematical. It is, however, considered by many

as hazardous, and should never be used until milder means have failed, especially in copious hæmorrhages from the rupture of some large vessel. The nauseating plan of treatment is less ambiguous, and more fully established. The bad effects which frequently attend vomiting, never take place from nausea, while it meets many of those indications, for which active vomiting is prescribed. Emetics administered in nauseating doses, have been thought to do good by relaxing the constriction of the capillaries, thereby augmenting the vascular system, and giving a more free, and general circulation to the blood. Their operation has likewise been accounted for, in a different way. They were supposed to stop the hæmorrhage, by a constriction which they produce upon the extreme vessels. But medicines possessing a greater power of astringency, are inferior to them in this respect. Their *modus operandi*, like many other actions of the *Mat. Med.*, cannot be satisfactorily

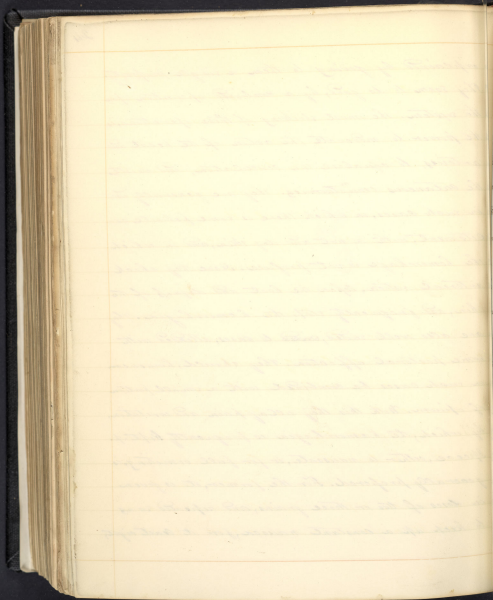
explained by giving to them a single property. They seem to do good, by a combined operation upon the system. The most striking of these operations, is the power to moderate the action of the heart and arteries, to equalise the circulation, and unite the cutaneous excretories. They are generally used in such cases, in which there is some febrile excitement, with a hot and dry skin, and in which the hemorrhage is not profuse. Here they check arterial action, open the heat and dryness of the skin, and frequently stop the hemorrhage. They are also well suited, ~~directed~~ to cases, attended with some pectoral affection. They should, however, in such cases be combined with a small portion of opium. With this they allay pain and irritation, by which, the hemorrhage is frequently kept up. Spices, either to nauseate, or for full vomiting, is generally preferred. For the former, it is given in doses of two or three grains, and repeated so as to keep up a constant nausea, for at least eight,

or ten hours. It is said to be much improved, by the addition of a small portion of opium. When given with the intention to excite vomiting, the usual dose is from ten to twenty grains.

The Emetic Tartar has also been much used, but mostly in nauseating doses, and in those cases attended with febrile excitement. It may be given from half a grain to a grain, and repeated in the same manner as the Ipecac.

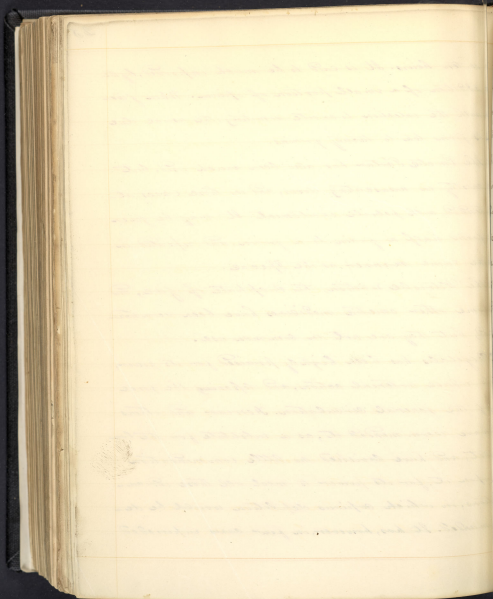
The Vitriolic solution, the sulphate of zinc, and some other emetic medicines have been recommended, but they are not in common use.

Digitalis has been highly praised for its power, to reduce arterial action, and lessening the force of the general circulation. *Scorriar* and others have recommended it, as a substitute for the lancet, and have lavished no little commendation upon it, for its power to meet all those indications, in which copious depletion would be demanded. It has, however, in few cases superseded



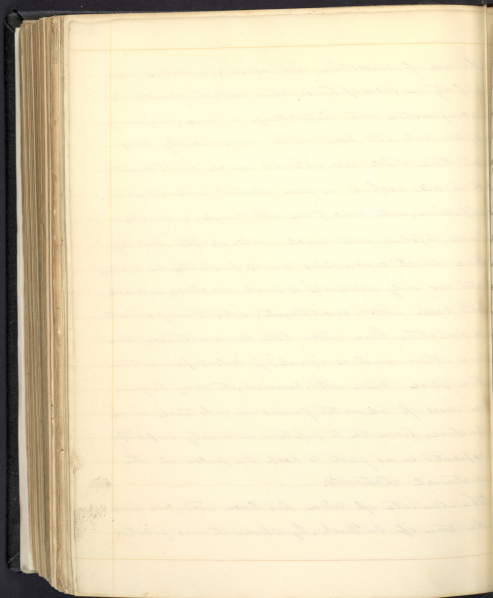
the use of evacuation, and never we believe with safety in Hemoptysis. When used, it should be in conjunction with bloodletting, or more properly after that had been carried sufficiently far, and there still remained too much excitement. It is also useful in cases attended with slight effusion, with some pain and cough, a quick pulse, together with much weakness and debility. Here direct evacuations would prostrate the system, and our only resource is such remedies, as check and keep under excitement, without any violent evacuation. Even under these circumstances, there are other remedies equal, if not superior to the Fox Glove. When used, however, it may be given in doses of one or two grains in substance, or in tincture, from ten to fifteen or twenty drops, and repeated so as just to keep the pulse at the natural standard.

The Muriate of Soda has been used, ever since the time of Dr Rush, by whom it was first

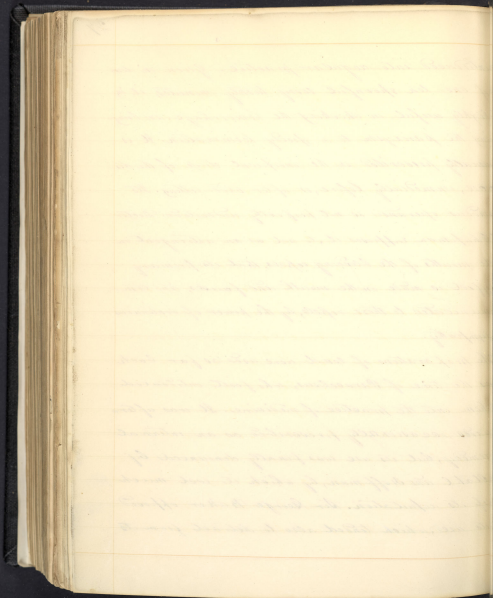


introduced into regular practice. Given in doses of one tea spoonful every twenty minutes, it is highly useful in checking the hemorrhage, and bringing the paroxysm to a speedy termination. It is usually prescribed in the incipient stage of the disease, immediately before, or after blood letting. Its modus operandi is not perfectly understood. Doctor Huxhaman supposes it, to act as an astringent on the mouths of the bleeding vessels, that its primary effect is made on the mouth and fauces, and communicated to those vessels, by the power of continuous sympathy.

The preparations of lead were used as far back as the time of Paracelsus, who first introduced them into the practice of medicine. It was afterwards occasionally prescribed as an internal remedy, but its use was finally denounced by Stahl and Hoff man, by which it lost much of its reputation. Sir George Baker approved its use, which tended also to detract from its

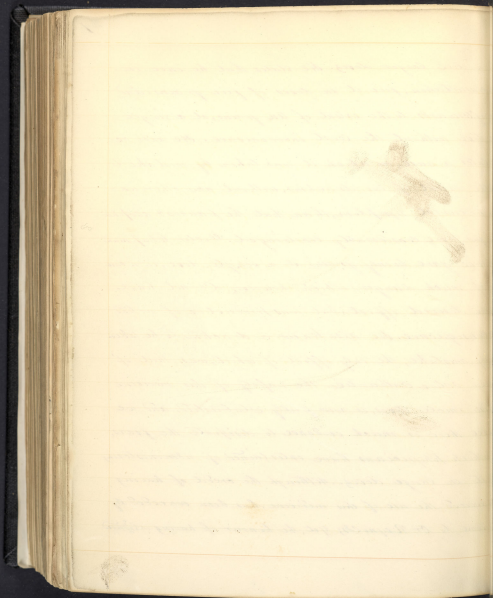


merits, and this, together with the opposition of
 Nicholson, finally brought it into disuse. They
 gave to it the property of a poison, or at least,
 they decided its use under any circumstance, to
 be more injurious than otherwise. The credit of
 having first employed this article with safety,
 has been given to Dr Reynolds. He employed it
 in the form of the subacetate of lead, in combi-
 nation with opium, which he used with great
 success without any of its deleterious effects.
 He also prescribed the Saccharum Saturni with
 much success in Uterine Hemorrhagia, Epistaxis,
 and Hemoptysis, in doses of one grain, with three
 drops of Laudanum, made into a pill and repeat-
 ed every six hours. The reports of Dr Reynolds, were
 soon confirmed by Dr Latham. He gave it in
 doses of one grain three times a day, for six, eight,
 and ten weeks successively (some times combined with
 opium) without any other precaution than obviat-
 ing costiveness. It has also been prescribed by him



in still larger doses. He states that he once in consultation, gave it in doses of five grains, and afterwards to the extent of ten grains, at a single dose without the least inconvenience. He also relates a case, in which it was taken by mistake to the extent of two drachms, without any other unpleasant symptoms, than that the fauces & oesophagus were considerably constricted. Doctor Chapman once gave twenty grains at a single dose, in a case of much danger, which, however, did not have the desired effect, but was productive of no bad consequence. He also knew a drachm to be taken by mistake, the only effect of which, was, that of an active cathartic. The safety of this medicine in small doses, is now fully established, and we see there is much evidence to dissipate the fears, which physicians have entertained of administering it in large doses. Although the credit of having revived the use of this medicine, has been awarded by some to Dr Reynolds; yet, the honour of having introduced

it into practice, at least in this country, in the active form of hemorrhagia, is due to the salt of sulphur (Barton). Its power, and that in large doses to stop hemorrhage, has been amply confirmed by the practice of Dr Dewees, and other American physicians. Doctor Barton was much in the habit of prescribing the *Saccharum saturni*, in combination with opium, or ipecacuanha, from which he obtained the happiest effects. Besides its power of astringency in hemorrhagia, it is said to exert a considerable influence over the arterial system. It is applicable to active and passive hemorrhages, but, when there is much excitement in the pulse, its administration must be accompanied with, or preceded by bloodletting. Its power, however, in arresting Hemoptysis, is particularly manifested, in those cases originally mild, or which have become so by previous evacuations. From these observations, the states of the system in which it should be used, are sufficiently obvious. It may be



given in doses from three to six grains, and repeated every three or four hours according to circumstances. It is frequently combined with opium, especially when there is much pectoral affection.

Alum is recommended in the same state of the system, as the preceding remedy, but by modern practitioners it is considered much inferior. It is supposed that it seldom does good, except when administered in such doses, as to produce nausea, & even then it is of doubtful efficacy. When prescribed it may be given in doses from five to ten grains.

Karo, Zinc, and several other astringents, are adapted to the same state of the disease, but are of such inferior power as seldom to be used.

The Mineral Acids have been prescribed, not only for their astringent, but likewise for their refrigerant power. They are hence more applicable to the first stages of this disease, than the remedies just mentioned. But we have already treated of morbid

better suited to check, or overcome febrile excitement, and the Vaccarium Saturei, Maricæ of Sedar are better astringents. The Mineral acids will therefore be seldom required, but when resorted to, the sulphuric is generally preferred. It is given in the doses, from five to twenty drops, and repeated as circumstances may require.

Opium from its power to check cough, allay pain, and circulation, would seem well suited to certain forms of this disease. But its primary effect being to increase the frequency and force of the pulse, would render its administration in many instances doubtful, if not hazardous. Its stimulating power is more obvious, when given in small and repeated doses, than when sufficiently large, to put the system immediately under its operations. In either mode of administration, however, as a stimulus it must impart that power to the system its stimulating effect being in the one case transient, and its relative permanent, while in the other the

system is gradually excited, and this state kept up, by the frequent administration of the medicine. The former is therefore the most approved practice, and its stimulating effect is supposed to be more than counterbalanced, by the salutary influence of its sedative power. Its use in any form, however, in the first stage of the disease, when there is much arterial action, a hot and dry skin, with profuse hemorrhage, is not yet sufficiently established. It is, however, fully established in those cases, attended with troublesome cough, difficult respiration, anxiety and uneasiness, with a small and contracted pulse. And even where there is much hemorrhage, with some excitement; if the respiring organs be much affected, the use of this medicine may relieve that state by which effusion is kept up, and thereby stop the hemorrhage.

The practice of Bleeding in Hemoptoeis, is fully established. It has been resorted to in that form of the disease, in which the preceding remedy has

The first of these is a general statement
that the present state of the world
is a result of the action of the
forces of nature. It is a statement
of the fact that the world is not
a perfect machine, but a system
of forces which are in constant
motion. The second is a statement
of the fact that the world is not
a perfect machine, but a system
of forces which are in constant
motion. The third is a statement
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a perfect machine, but a system
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motion.

been used. It is, however, better suited to the first stages, and may be safely used after some evacuation. They lessen pain and irritation, quiet and compose the system, and change the flow of blood from the internal parts to the surface. There is some difference of opinion, as to what part they should be applied. Some preferring the extremities, the back of the neck, or along the spine, whilst others recommend their application to be made, directly over the seat of the disease. The weight of authority is in favor of the latter, and having the blister sufficiently large, to cover the whole front of the chest.

Throughout the whole of this treatment, the patient should be placed, in a cool situation, and on a mattress instead of a bed. If the weather be warm, free circulation should be given to the air within the chamber, by hoisting the window, and opening the doors. If cold, the temperature should not be raised by artificial means. Warm

gives will therefore be improper. All company should be excluded from the room, except such as is actually useful and necessary in attendance. The patient should be kept as quiet, and composed as possible. He should not be suffered to engage in conversation, and should carefully avoid every exertion of body and agitation of mind.

The preceding remedies will in most instances arrest the hemorrhage. But after it has been stopped, it leaves behind it a strong predisposition to return. This should be prevented as soon as possible, for the more frequent the paroxysms, the more unmanageable will be the disease. It will hence be necessary to keep the patient under the prophylactic treatment, for some time after the hemorrhage has been stopped. The exciting causes of the disease, which have been heretofore pointed out, should be carefully avoided, and every part of the antiphlogistic regimen

should be rigidly observed. The bowels should be regularly evacuated by some mild and cooling cathartic, thereby moderately reducing the circulating fluid, and preventing an inordinate accumulation of feculent matter. Small bleedings, occasionally repeated, by opening the quantity of blood, and diverting it from the lungs, would seem to be a useful remedy. But it has been objected to, upon the principle of its increasing plethora, and thereby inducing the state it was intended to prevent. This no doubt would be the case, were the bleedings too frequently and unnecessarily repeated. But when only carried so far, as to relieve the system of that quantity of blood, which would be discharged from the lungs, we cannot conceive in what manner it would have such an effect - why should blood drawn from the arm increase a plethoric state more, than the same quantity effused from the lungs? Herbs and Spices by their power of resolution, promote

The first of these is the fact that the
 amount of rainfall in the district is
 very small. The average annual rainfall
 is only about 10 inches. This is a very
 small amount for a district of this size.
 The second fact is that the rainfall is
 very irregular. It is not evenly
 distributed throughout the year. There
 are periods of heavy rain, followed by
 long periods of drought. This makes
 it very difficult to grow crops.
 The third fact is that the soil is very
 poor. It is mostly sand and gravel.
 There is very little topsoil. This makes
 it very difficult to grow crops.
 The fourth fact is that the district is
 very hot. The temperature is usually
 between 80 and 90 degrees Fahrenheit.
 This makes it very difficult to grow
 crops. The fifth fact is that the district
 is very dry. There is very little water
 in the district. This makes it very
 difficult to grow crops.

suck in the treatment of this disease. They should be applied to some distant part of the body, such as the back of the neck, or the extremities. A perpetual blister will meet the same indications.

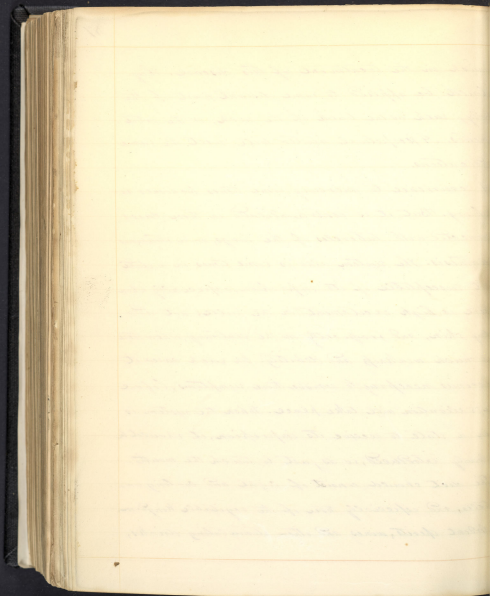
A recurrence to mercury some times becomes necessary. But it is contra-indicated in those cases connected with tubercles of the lungs, or a chronic diarrhoea. The system also is some times in a state not susceptible of its impression, especially when there is high excitement in the pulse; hot and dry skin, and profusely on the vomiting, when there is much weakness and debility. In such cases it becomes necessary to remove those symptoms, before a salivation will take place. When the system is in a state to receive its impression, it should be slowly introduced, so as just to touch the mouth. The diet should consist of light and cooling articles, and especially those of the vegetable kingdom. Spiced spirits, wines and other stimulating drinks,

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...the third of the month ...
...the fourth of the month ...
...the fifth of the month ...
...the sixth of the month ...
...the seventh of the month ...
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...the twenty-eighth of the month ...
...the twenty-ninth of the month ...
...the thirtieth of the month ...
...the first of the next month ...
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...the twenty-seventh of the next month ...
...the twenty-eighth of the next month ...
...the twenty-ninth of the next month ...
...the thirtieth of the next month ...

should be abandoned, and simple water, or acidulated drink only should be taken.

Exercise as increasing the quantity of the circulating fluid, by increasing the secretions and excretions, and determining the blood to the surface, should not be omitted. The most usual manner of taking it, and that recommended by most authors, is riding or horse back, in a carriage, sailing, rowing &c. Whichever mode be adopted, the patient should not indulge himself so as to bring on fatigue, or debility, for in all such instances instead of a salutary, it will be marked by a pernicious result.

The heat of the body should be kept uniform, by wearing flannel next to the skin, and (should the patient be confined) by carefully regulating the temperature of his room. These failing, a journey to a warm climate in winter, and a cold one in summer may be found useful. A sea voyage should also be tried.



This is the plan of treatment recommended by the most distinguished practitioners, and especially by Doctor Chapman, to whom we are so much indebted, not only for our knowledge of this, but of every other disease. We are induced to believe this mode of treatment, will prove as successful as any other; yet, it will frequently fail, & especially in patients who are predisposed to pulmonary affection.

